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ABSTRACT

This paper describes Project on Involvement, which was designed to investigate student involvement in a task by defining it in terms of nonverbal behaviors and by identifying its dimensions. To accomplish these objectives, eight trained graduate students made 15-minute observations of each of 44 preschool children. The children were observed in the natural classroom setting from behind one-way screens and all nonverbal behaviors were recorded in diary fashion. The data obtained were analyzed using a content analysis procedure that included the following steps: devising a category system, checking reliability in applying the category system, and revising the category system. There were three outcomes of the analysis: (1) a definition of involvement that refers to nonverbal behaviors and their modifiers which indicate "how" a body expresses itself and "how" it moves; (2) eight dimensions of involvement: speed, tension, frequency, duration, specific-global, direction, frequency of change, and range of movement and sound; and (3) some ideas about how these outcomes might be utilized in the future development of an instrument. Concluding discussion focuses on the implications of the project both for classroom procedures and further studies. Five appendixes and an annotated bibliography are included. (SDH)

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THE PROJECT ON INVOLVEMENT: AN INTERIM REPORT

This report is one of a series of occasional papers describing studies conducted in the Center for Young Children, a knowledge-producing unit of the University of Maryland. The Center, which includes four classrooms, each with observation booths, is attempting to delineate new knowledge on process skills such as communicating, valuing, involvement, decision making, and knowing.

Characteristic of the studies conducted in the Center is the utilization of naturalistic research techniques. In other words, methodologies which describe what is happening in the classroom setting are frequently critical to gaining knowledge on the topic under investigation.

Another characteristic of the studies is that researchers are encouraged to build cumulative knowledge on a topic. Thus, for example, a number of studies have been conducted in the Center on such topics as decision making and communication--both verbal and nonverbal.

A third characteristic is that studies are cooperatively developed. A common mode of proceeding in knowledge production is to team an advanced graduate student with a professor. These persons work with groups of graduate students on the problem under investigation.

The subject of Involvement which is treated in the pages which follow is a very critical one. We assume that children should become involved in their learning activities but we have little in the way of descriptive tools to let the teacher or researcher in on whether the child is in

reality involved.

Jessie Roderick, Principal Investigator, and member of the Department of Early Childhood-Elementary Education, deserves credit for her willingness to address herself to the very significant topic. The work which she has begun should result in outcomes of inestimable value to teachers and researchers. Barbara Littlefield, Associate Investigator, is acknowledged for the major role she played in working with the researchers and pulling together this interim report.

Louise M. Berman
Professor and Director
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PREFACE

In the process of man's striving for meaning in life, he is faced with a surfeit of opportunities to develop his life styles, which in turn forces him to decide how and where he will expend his energies. Which ideas, persons, or projects will he become involved in, absorbed in, or experiment with? To what will he become committed?

Youth need help in determining what is important and worth pursuing, and education is one institution that should provide such guidance. However, there are very few materials that would facilitate the school's accomplishing this task. The Project on Involvement is a beginning attempt to develop tools which will facilitate a teacher's determining the degree of involvement a student brings to a task. The focus of this study is nonverbal indicators of involvement. All who were involved in the project are aware of the exploratory nature of it and the fact that there is still much to be done.

The graduate students who worked on this project throughout the year are to be commended for their willingness to grapple with a difficult and often elusive concept. Many hours were spent in collecting data, determining and defining components or categories, applying them to observations, and revising and re-analyzing them after checking for reliability. Much credit is due the participants for their support and enthusiasm during every phase of the project.

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Nature of the Study and Rationale

The purpose of the Project on Involvement was to define and describe involvement as indicated by an individual's nonverbal behaviors while engaged in a task. When the school moves away from teacher-directed activity as in individualized, personalized, learning situations, the assumption is that children can participate in designing their own learning. In order to function effectively under these conditions, teachers need to be able to ascertain with some degree of objectivity the amount of involvement a student brings to a task. At the present time there is inadequate information about the child's degree of involvement in activities planned: (1) by the child alone, (2) by the teacher, (3) by some outside source, or (4) by cooperative endeavors of teachers and children. It is necessary to obtain information about the worth of tasks in captivating the child's capacity to become involved in numerous kinds of learning experiences which the school provides.

The Stage of Development

The Project on Involvement is an outgrowth of developing and working with the Pupil Nonverbal Behavior Category System (Appendix A). In utilizing the Pupil Nonverbal Behavior Category System it was found that behaviors such as smiling in the Feeling Expression Category, seem to rather consistently accompany other behaviors such as playing with a truck. This led to questioning whether Feeling Expression Behaviors might indicate the degree of involvement that a person brings to a task. It was felt that a thorough analysis of the Feeling Expression Category would result in a better understanding of involvement.

Shortly after analysis of the Feeling Expression Category was begun, the study's purposes were revised for two reasons. One reason was that there were indicators of involvement in nonverbal behaviors that had not been included in the Feeling Expression Category. For example, hitting, pushing, and kicking, behaviors in the Initiating Behavior Negative Category, seem to also indicate the degree of personal involvement. A second reason was that the researchers began to view involvement as a continuum on which all nonverbal behaviors could be placed as opposed to a quality that a single behavior may or may not possess. An example of this is picking up an object as opposed to grabbing it. Although both behaviors indicate involvement of an individual, the involvement seems to vary in degree. At this point all nonverbal behaviors were examined in terms of involvement with the intent to design a second nonverbal instrument which would describe how nonverbal behaviors occur. Eventually these nonverbal behaviors might be placed on an involvement continuum.

The Major Purpose of the Study

The major purpose of the Project on Involvement was to describe involvement by defining it in terms of nonverbal behaviors and by identifying its dimensions. The dimensions of involvement are those qualities or characteristics of nonverbal behaviors which make it possible to place them in relation to each other along an involvement continuum. For example, one difference between grabbing an object and picking up one seems to be the amount of tension a person employs as he performs the act. In this instance tension would be a dimension differentiating between the behaviors of picking up and grabbing an object.

Procedures and Rationale

To accomplish the dual purposes of defining involvement and identifying the dimensions of involvement, data were collected, analyzed, and re-analyzed. The data were collected by observing children in the natural classroom setting through one-way screens from observation booths adjoining each classroom. The observations were written in diary fashion in order to obtain a complete record of all nonverbal behaviors, both simultaneous and sequential, both global and specific. The data obtained in these observations were subjected to techniques of content analysis for two reasons: (1) The procedures of content analysis permit a relatively objective analysis of diary-type data; (2) The Center for Young Children employs techniques of content analysis in a number of its projects because of the appropriateness of this research methodology in studying young children. The observations were re-analyzed because the initial analysis was incomplete. Specific procedures are described under the following headings: Collection of Data, Analysis of the Data, and Re-Analysis of the Data.

Collection of the Data

Eight observers made 44 fifteen-minute observations in the University of Maryland Center for Young Children during October 1971.

Observers. The eight observers were graduate students in education at the University of Maryland. They attended two one-hour training sessions in which they were oriented to the project, examined and discussed sample-written observations, and viewed video tapes made in the Center for Young Children.

Population. Seventy children of University faculty and staff and a nearby community attend the Center for Young Children. Broadly speaking, the children can be described as follows:

Ages--17 three-year olds, 27 four-year olds, 26 five-year old

Sex--34 males, 36 females

Approximate income--13 low to middle, 57 middle

Family background--52 born in U.S.A., 18 child or parent from another nation

A full description of the interaction of the population with the four relevant variables is contained in Appendix B, Table I.

Sample. The observations were 15-minute time samples of individuals in the Center for Young Children. The forty-four observations were a stratified sampling from the population and can be described in relation to the four variables in the following way:

Age--14 three-year olds, 14 four-year olds, 16 five-year olds

Sex--21 males, 24 females

Approximate income--8 low to middle, 36 middle

Family background--33 born in U.S.A.; 11 child or parent from another nation

A full description of the interaction of the observations with the four relevant variables is contained in Appendix B, Table II.

Analysis of the Data

The data were analyzed using a content analysis procedure described by Berelson as ". . . a research technique for the objective, systematic, and quantitative description of the manifest content of communication."[1]

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[1]Bernard Berelson, Content Analysis in Communication Research (New York: American Book-Stratford Press, 1952), p. 18.

In general, there are two approaches to content analysis: (1) The researcher begins with a category system containing a miscellaneous category and gathers data to revise the system so that less than five percent of the units observed fall into the miscellaneous category; (2) the researcher has no preconceived notions about the categories, but derives categories from the data. In this study there were no preconceived categories; so the second approach to content analysis was utilized. The total procedure included the following steps: devising the category system, checking reliability in applying the category system, and revising the category system.

Devising the Category System. Steps in devising a category system include: (1) choosing a unit; (2) grouping the units into categories; (3) naming and describing the categories; and (4) adding to the category descriptions directions and a tally sheet for use in analyzing written materials or in coding behavior.

The unit selected for this study was a nonverbal behavior with its modifiers. For example in the behavior jumps quickly, jumps is considered to be the nonverbal behavior and quickly the modifier.

Sellitz's three principles of grouping units into categories were used as guidelines. These principles are: Units should be classified in keeping with the purposes of the study, categories would be mutually exclusive, categories should be exhaustive.[2] The specific procedures followed in this study were:

1. The nonverbal behaviors with their modifiers from each of the 44 observations were listed.

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[2] Claire Sellitz and Others, Research Methods in Social Relations (New York: Henry Holt & Company, 1959), p. 392.

2. Attempts to group these nonverbal behaviors with their modifiers, when given, were made. Behaviors with their modifiers were grouped according to the type of action but not with respect to involvement.

3. The nonverbal behaviors were separated from their modifiers and only the modifiers were grouped with respect to involvement. This step was taken because there seemed to be no overall scheme for grouping nonverbal behaviors with their modifiers in the context of involvement.

4. Four groups of involvement modifiers were identified in this initial analysis.

At this point there were two sets of categories, one which classified all nonverbal behaviors with their modifiers but not with respect to involvement, and one which classified some involvement modifiers. The analysis was known to be incomplete with respect to the Sellitz guidelines in two respects. First, units or nonverbal behaviors with their modifiers were not being classified with respect to involvement as was stated in the purpose. Instead, only involvement modifiers of nonverbal behaviors were being classified. Second, the categories of involvement modifiers of nonverbal behaviors were not exhaustive. That is, not all nonverbal behavior involvement modifiers could be subsumed under any one of the four groups.

Both sets of categories were named and defined with the intent to make them mutually exclusive and exhaustive. The nonverbal behavior without its classifiable modifiers is called the Action. Categories applying to actions are Motion, Stance, Visual, Nonvisual Facial, Nonvisual Sensory, and Self Communication. Categories applying to classifiable modifiers of nonverbal behaviors are Speed Modifier, Strength Modifier, Frequency Modifier, and Amount of Time Modifier.

These categories and definitions were made into the initial category system called Nonverbal Involvement Behaviors (Appendix C). There are

three parts to this category system: the Directions Sheet, the Definitions Sheet, and the Tally Sheet. The Directions Sheet describes what to classify (nonverbal behaviors meeting certain conditions), where to write the units (nonverbal behaviors with nonclassifiable modifiers, and four kinds of classifiable modifiers) on the tally sheet, and how to categorize the behaviors and modifiers on the tally sheet using a code for each. The Definitions Sheet provides the definition of an action, each action category, and each involvement modifier category.

Checking Reliability in Applying the Category System. This section includes a description of the participants and their orientation and task, a description of the results of checking the reliability of the category system, and the implications of these results.

Seven graduate students in education participated in the reliability check. Of the seven, three had no prior experience with the project, and four had made some of the 44 observations used as data in the analysis. Each of the participants attended a 45-minute orientation session in which they learned to use a sample category system (Appendix D). The sample category system parallels the Nonverbal Involvement Behaviors category system in two ways. First,it contains a Directions Sheet, a Definitions Sheet, and a Tally Sheet. Second, it involves a listing and coding of words or groups of words. After having used the sample category system on one set of observations, each participant was given the Nonverbal Involvement Behaviors category system and a different set of three observations randomly chosen from the 44 on which to apply the category system.

The results of the reliability check are as follows:

	Behaviors Listed	Behaviors Listed and Coded
Action	.67	.37
Speed Modifier	.16	.16
Strength Modifier	.10	.00
Frequency Modifier	.02	.00
Amount of Time Modifier	.00	.00

Coefficients were computed according to Holsti's formula.[3] The Behaviors Listed column gives the reliability coefficients for listing the action or modifier. This tests consistency in applying the definitions of Action, Speed Modifier, Strength Modifier, and Amount of Time Modifier. Reliability is fairly high for listing actions but is extremely low for listing modifiers. The primary reason for low reliability in listing involvement modifiers is that there were few modifiers in the three observations.

The Behaviors Listed and Coded column gives the reliability coefficients for coding the listed actions and modifiers. This tests consistency in applying the coded rating to each action or modifier. The Action ratings were motion, stance, visual, nonvisual, facial, nonvisual sensory, and self communication. The Speed Modifier ratings were slow, moderate, and fast. The Strength Modifier ratings were short, average, and long. The reliability of listing and coding actions is much lower because there were many instances in which actions were either not listed by all of the coders or were listed by all coders but were coded in at least two different ways among the seven coders. This suggested that definitions in the action categories needed improvement. In other words, these categories

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[3] Zaninovich Holsti, Content Analysis: A Handbook with Application for the Study of International Crisis (Northwestern University Press, 1963).

are not mutually exclusive. Since there were so few involvement modifiers, reliability of listing and coding these modifiers was low as would be expected.

Revising the Category System. Two types of changes were made in the definitions in order to improve intercoder reliability. One change was in the definition of an action. Coders were specifically directed to list nonverbal behaviors occurring simultaneously as separate actions and to list interpretive behaviors such as finishes reading only when they are accompanied by an observable behavior such as finishes reading and closes book. A second type of change was in the categories used to code the actions. Definitions of all action codes were revised to make the wording clearer since in applying these definitions it was found that the categories were not mutually exclusive. For example, it was necessary to differentiate more clearly between Motion and Stance. Also a Physiological Self-Sounds category was added and the name of the Self-Communication category was changed to Self-Sounds. Revisions were made only on the Directions Sheet and the Definitions Sheet, and not on the Tally Sheet. The revised category system appears in Appendix E.

Re-Analysis of the Data

The data were re-analyzed because the initial analysis was incomplete. The emphasis in the re-analysis of the data was on expanding the dimensions of involvement and on placing the nonverbal behavior with its modifiers on an involvement continuum. This was primarily a brainstorming session. Eight dimensions as defined in the Statement of Outcomes section resulted from the analysis. Four dimensions were the same as modifier categories in the Nonverbal Involvement Behaviors category system except for two name changes. The dimensions and their changes were Speed, Frequency,

Tension, formerly Strength, and Duration, formerly Amount of Time. Four new dimensions designated Direction, Specific-Global, Frequency of Change, and Range of Movement and Sound emerged from the re-analysis. Ideas for these dimensions came from Birdwhistell's analysis of body motion[4] and from the research group's attempt to classify modifiers of nonverbal behaviors contained in the data that had not been classified in the initial analysis. Also an attempt was made to check for exhaustiveness in the eight dimensions. This was done by comparing two phrases which seemed to differ only in degree of involvement in order to see if the difference could be justified using the dimensions. These phrases came both from the data and from synthesis of the group's reading and thinking. An example is pickup, grasp, and grab. These three words convey the idea of picking up an object, but grasp and grab seem to imply more tension and speed. Therefore the dimensions of tension and speed seem to justify placing these actions in a given order on an involvement continuum.

Statement of Outcomes

The outcomes of the analysis include a definition of involvement, eight defined dimensions of involvement, and some ideas about how these might be utilized in the development of an instrument at a later date.

Involvement as defined in this project refers to nonverbal behaviors and their modifiers which indicate how a body expresses itself and how it moves. The how ranges from simple engagement behaviors (glances at a book) to those behaviors suggesting more absorption (stares at a picture).

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[4] Ray Birdwhistle, Kinesics and Context (Philadelphia: University of Pennsylvania Press, 1970), pp. 215-224.

Eight dimensions of involvement identified are Speed, Tension, Frequency, Duration, Specific-Global, Direction, Frequency of Change, and Range of Movement and Sound. Each dimension was defined and represented either by a dichotomy or a continuum as described below:

1. Speed is an indication of the velocity of an action. It can be expressed on a slow-moderate-fast continuum.

2. Tension is an indication of the power or display of physical emphasis exerted in producing the action. It can be expressed on a weak-average-strong continuum.

3. Frequency is an indication of how often an action occurs. It can be expressed on a once or twice-several times-often continuum.

4. Duration is an indication of the length of time an action occurs. It can be expressed on a short-average-long continuum.

5. Specific-Global is a continuum defined by its endpoints. A specific behavior relates to a particular part of the body. A global behavior involves the body as a whole.

6. Direction is the focus of attention or movement. It is a dichotomy expressed by the two words multi-directional or uni-directional. Examples of multi-directional behaviors are looks around, jumps up and down, runs around the room. Examples of uni-directional behaviors are looks at, jumps up, runs toward the piano.

7. Frequency of Change is the number of types of behaviors within an observation. A type of behavior is defined as orientation to one task, orientation to one person or group of persons, or other orientations including self-orientation or simultaneous task and person orientation. It can be expressed on a no change-some change-frequent change continuum.

8. Range of Movement and Sound is width of movement or quality of sound. It can be expressed on a narrow-average-broad continuum or on a soft-medium-loud continuum.

It is hypothesized that continua for these eight dimensions are stated from low involvement to high involvement where low involvement is characterized by simple engagement behaviors and high involvement is characterized by more absorbing behaviors.

Mention should be made of how these results can be used to further describe involvement. Of the eight dimensions, six dimension (Speed, Tension, Frequency, Duration, Direction, Range of Movement and Sound) can be applied to rating individual nonverbal behaviors on involvement, one dimension (Frequency of Change) can be applied only in rating groups of nonverbal behaviors on involvement, and one dimension (Specific-Global) is not well enough defined to be useful. It is hoped that further study will enable placing nonverbal behaviors and/or groups of nonverbal behaviors on an involvement continuum perhaps using a weighted sum of dimension ratings. Such a scheme would enable a further naming and describing of points on an involvement continuum.

Implications

The overall Project on Involvement has implications both for classroom procedures and for further studies. An involvement category system will enable educators to view the classroom situation, individual children, and groups of children from another perspective. In this way, teachers can obtain more objective information relative to indications of student involvement. Such knowledge will enable teachers to plan learning experiences that will be of value to individuals and groups.

A number of future directions seem appropriate as a result of the Project on Involvement.

First, the work reported in this interim report needs to be further refined and elaborated. There is a need to develop instrumentation which can be easily used by the researcher and the practioner.

Second, a series of studies might be conducted which examine involvement in relation to such factors as age, sex, number of children in classroom, and choice of activity.

Third, a series of studies might be conducted on one child. The category system components might be used to obtain information about a child at selected intervals. These data might then be compared with the perceptions that teachers, parents, peers, and the child himself have of his involvement.

Fourth, studies might be conducted which compare the degree of involvement a child shows when he has had the opportunity to plan his learning and when he has not been involved in designing his learning opportunities.

APPENDICES

APPENDIX A

REVISED PUPIL NONVERBAL BEHAVIOR CATEGORY SYSTEM

CATEGORY SYSTEM: PUPIL NONVERBAL BEHAVIOR

Recording Symbol	Category Definition
H	Habitual .Perfunctory acts performed automatically .Mechanical personal acts
FE	Feeling Expression .Facial expression of feeling .Expression of emphasis .Communicating with self .Overt expression accompanying body movement
FS	Focusing-Seeking Behavior .Observes, watches closely, listens .Seeking approval, praise, help, recognition, permission, alternatives, ideas
IP	Initiating Behavior-positive .Bodily contact and/or gesture in which child strikes out to show affection, to be friendly, to show interest in, to praise
IN	Initiating Behavior-negative .Bodily contact and/or gesture in which child strikes out at another child or teacher for no apparent reason .Reaches for or grabs for toy and/or materials from another child or teacher
MTP	Movement Toward People .Facilitative movement toward person or persons--to direct, initiate, join
P	Pause .Pause in course of action
TO	Task Oriented .Approaching and/or working at task and/or materials
RP	Responsive Behavior-positive .Positive response to directions, questions, commands, suggestions, invitations, gestures .To emotional expressions (crying, shouting) .To deliberate acts (putting arm around, giving toy)
RN	Responsive Behavior-negative .Negative response to directions, questions, commands, suggestions, invitations, gestures .To emotional expression (crying, shouting) .To deliberate acts
W	Withdraw .Remove self from situation, task or activity involving people and/or equipment

APPENDIX B

POPULATION AND OBSERVATION DISTRIBUTION TABLES

TABLE I

DISTRIBUTION OF THE POPULATION ON FOUR VARIABLES

	Age 3				Age 4				Age 5				Total
	Other Nations Approximate Income		U.S.A. Income		Other Nations Approximate Income		U.S.A. Income		Other Nations Approximate Income		U.S.A. Income		
	Low	Middle	Low	Middle	Low	Middle	Low	Middle	Low	Middle	Low	Middle	
Male	0	4	2	2	0	3	5	7	0	3	3	5	34
Female	0	5	1	3	0	0	1	11	0	3	1	11	36
TOTAL	0	9	3	5	0	3	6	18	0	6	4	16	70

TABLE II

DISTRIBUTION OF THE OBSERVATIONS ON FOUR VARIABLES

	Age 3				Age 4				Age 5				
	Other Nations Approximate Income		U.S.A. Income		Other Nations Approximate Income		U.S.A Income		Other Nations Approximate Income		U.S.A. Income		
	Low	Middle	Low	Middle	Low	Middle	Low	Middle	Low	Middle	Low	Middle	
Male	0	2	2	3	0	2	1	4	0	2	2	3	21
Female	0	3	1	3	0	0	1	6	0	2	1	6	23
TOTAL	0	5	3	6	0	2	2	10	0	4	3	9	44

APPENDIX C

INITIAL NONVERBAL INVOLVEMENT BEHAVIOR CATEGORY SYSTEM

DIRECTIONS SHEET FOR NONVERBAL INVOLVEMENT BEHAVIORS
January 1972

1. What to Classify
   The term involvement as used in this instrument refers to nonverbal behaviors and accompanying qualifiers which indicate how the body expresses itself and how it moves. The how ranges from simple awareness behavior to complete commitment behaviors. Statements about motion, stance, visual, nonvisual facial, nonvisual sensory, and self communication are included. Statements that are observer judgments, such as tries to, attempts to, or ignores, are not included. Phrases such as starts to, begins to, finishes painting, and stops riding the bike are not included because they do not tell how a behavior was performed, but merely signal the beginning or ending of an action.

2. How to Classify
   Procedure: For each nonverbal involvement behavior--
   a. Write each nonverbal involvement behavior on a separate line, separating any speed, strength, frequency, or amount of time modifiers from the rest of the action.

   b. Rate each action in the C column following the action with an M if it is motion, with an S if it is stance, with a V if it is visual, with an NVF if it is nonvisual facial, with an NVS if it is nonvisual sensory, and with an SC if it is self communication.

   c. Rate each speed modifier in the C column following the speed modifier with a 1 if it indicates slow movement, with a 2 if it indicates the average normal speed for the action being observed, or with a 3 if it indicates fast movement.

   d. Rate each strength modifier in the C column following the strength modifier with a 1 if it indicates a weak movement, with a 2 if it indicates average force for the action, and with a 3 if it indicates a strong movement.

   e. Rate each frequency modifier in the C column following the frequency modifier with a 1 if it indicates an action occurring once or twice, with a 2 if the action occurred several times, and with a 3 if the action is occurring continuously.

   f. Rate each amount of time modifier in the C column following the amount of time modifier with a 1 if a short period of time is indicated, with a 2 if an average period of time is indicated, and with a 3 if a long period of time is indicated.

Appendix C, continued

ACTION

An Action is defined as a nonverbal behavior of a person as he relates to his environment. The Action as here defined is generally signalled by a verb phrase (but may be signalled by a noun phrase) without its speed, strength, frequency, or amount of time modifiers. Examples: shuffles over to original table, smiles broadly.

MOTION

Motion is defined as a movement of the body as a whole and/or parts of the body not included in the categories of Stance, Nonvisual Facial, Visual, Nonvisual Sensory, or Self Communication. Examples: crawl, grab, throw, go.

STANCE

Stance is defined as action or the absence of action involving a body position or change of body position. Stance does not overtly involve another person or the manipulation of an object. Examples: sit, hold, kneel, pause.

VISUAL

Visual is defined as attention of the eyes as demonstrated by eye movement or eye stance. Examples: stare, look up, look around, watch, scan.

NONVISUAL FACIAL

Nonvisual Facial is defined as actions involving the total face or parts thereof, not defined as Visual or Sensory. Examples: smile, blank look, frown.

NONVISUAL SENSORY

Nonvisual Sensory behaviors are those involving the senses of taste, smell, touch, and hearing. Examples: eat, taste, touch, listen.

SELF COMMUNICATION

Self Communication consists of verbalized sounds made in conjunction with object movement (sound effects) or made for the purpose of communication with self. Examples: hums, makes a siren noise.

SPEED MODIFIER

A Speed Modifier is an indication of the velocity of an action. The Speed Modifier is usually signalled by an adverb or adverbial phrase. Speed modifiers are placed along a slow, moderate, or fast continuum. Examples: quickly, rapidly, slowly.

STRENGTH MODIFIER

A Strength Modifier is an indication of the power or physical display of emphasis exerted in producing the action. A Strength Modifier is usually signalled by an adverb or adverbial phrase. Strength Modifiers are placed along a weak, average, or strong continuum. Examples: tightly, gently, loosely.

Appendix C, continued

FREQUENCY MODIFIER

A Frequency Modifier is an indication of the amount of repetition or the number of times an action occurs. A Frequency Modifier is usually signalled by an adverb or adverbial phrase. Frequency Modifiers are places along a one or two times, several times, continuously continuum. Examples: twice, again, continuously, several times.

AMOUNT OF TIME MODIFIER

An Amount of Time Modifier indicates the duration of occurrence of an action. Amount of Time Modifiers are signalled by words or phrases (not necessarily clocked times). Amount of Time Modifiers are placed along a short, average, and long continuum. Examples: still, continues to, briefly.

Appendix C, continued

University of Maryland--Nursery-Kindergarten
Tally Sheet for Nonverbal Involvement Behaviors

Action M-motion NVF-Nonvisual Facial S-stance NVS-Nonvisual Sensory V-visual SC-Self Communication		Speed Modifier 1-slow 2-moderate 3-fast		Strength Modifier 1-weak 2-average 3-strong		Frequency Modifier 1-once or twice 2-several times 3-continuously		Amount of Time Modifier 1-short 2-average 3-long	
Word or Phrase	C	Word or Phrase	C	Word or Phrase	C	Word or Phrase	C	Word or Phrase	C

APPENDIX D

SAMPLE CATEGORY SYSTEM

Project on Feeling Expression (1/72)

Directions for applying the sample category system:

1. As an example of a task similar to the reliability check of the How Category System we are asking you to do at home, we will apply some different definitions and categories to some of your observation booth data. In this sample system we will be classifying subjects and predicates of main clauses, which are usually simple sentences. Compound subjects and/or predicates will be written on separate lines linked by brackets. Corresponding subject and predicate will appear on the same line.

2. Procedure: For each main clause,

   a. Write each subject on a separate line.

   b. Write each predicate on a separate line, separating the direct object and its modifers from the rest of the predicate.

   c. Rate each subject in the R column following the subject with a 1 if it is a noun, with a 2 if it is a pronoun, and with a 3 if it is a group of words functioning as a noun.

   d. Rate each direct object in the R column following direct object and its modifiers with a 1 if it is a person, with a 2 if it is an object, or with a 3 if it is neither a person nor an object.

3.

Subject	R	Verb+(anything that is not a direct object with its modifiers	Direct object + modifiers	R
Jane	1	ran home from school		
Jim	1			
Jane	1	ran up the stairs		
		opened	the door	2

Definitions for the Sample Category System:

1. Subject - The subject is the person or thing about which the predicate of a sentence or clause makes an assertion. It is either a noun, pronoun, or a word or group of words functioning as a noun.

   Examples: 1. Sheep graze. (noun)
   2. She is dancing. (pronoun)
   3. Over the fence is out. (group of words functioning as a noun)

2. Predicate - The predicate is the part of the sentence or clause that makes a statement about the subject. It includes the verb and its complements and modifiers.

   Examples: 1. I walked quite slowly. (verb and modifiers)
   2. We ate ham and eggs. (verb and direct object complements)

3. Direct Object - The word, phrase, or clause that receives directly the action of a transitive verb.

   Examples: 1. I followed him.
   2. You may keep whatever you find.

4. Noun - A word used to name a person, place or thing.

   Examples: 1. Carl
   2. Detroit
   3. studio
   4. committee

5. Pronoun - A word used in place of a noun.

   Examples: 1. I
   2. You
   3. it

6. Word or group of words functioning as a noun.

   Examples: 1. What John wants is a better job.
   2. Fishing is an interesting sport.
   3. That he would survive was doubtful.

7. Person - A person is a human being as distinguished from a thing or lower animal.

   Examples: 1. him
   2. Frank
   3. Susan

8. Object - An object is a thing that can be seen or touched.

   Examples: 1. pot
   2. window
   3. toy

Project on Feeling Expression
Tally Sheet for the Sample Category System (1/72)

Subject		Predicate		
Subject	R	verb + anything that is not a direct object with its modifiers	direct object + modifiers	R

APPENDIX E

REVISED NONVERBAL INVOLVEMENT BEHAVIOR CATEGORY SYSTEM

Directions Sheet for Nonverbal Involvement Behaviors
March 1972

1. What to Classify

The term involvement as used in this instrument refers to nonverbal behaviors and accompanying qualifiers which indicate how the body expresses itself and how it moves. The how ranges from simple engagement behavior (glances at a book) to those suggesting more absorption (stares at a picture). Statements about MOTION, STANCE, VISUAL, NONVISUAL FACIAL, NONVISUAL SENSORY, SELF-SOUNDS, AND PHYSIOLOGICAL SOUNDS are included. Only stated behaviors are classified and not those behaviors inferred from the description.

Use of terms such as "tries to," "begins to," and "finishes" are included only if they are accompanied by some observable behavior. A phrase such as "finishes reading" would need to be described.

Observer judgments or interpretive statements such as "looks happy," "ignored," and "was angry" are not included. Only described behaviors leading an observer to these conclusions would be classified.

Behaviors which occur simultaneously are classified separately. For example, "eyes and mouth open wide" contains both a reference to the VISUAL category (eyes. . .open wide) and the NONVISUAL FACIAL category (mouth open wide). Repeated behaviors are classified each time they occur.

2. How to Classify

Procedure: For each nonverbal involvement behavior--

a. Write each nonverbal involvement behavior on a separate line, separating any speed, strength, frequency, or amount of time modifiers from the rest of the action.

b. Rate each action in the C column following the action with an M if it is motion, with an S if it is stance, with a V if it is visual, with an NVF if it is nonvisual facial, with an NVS if it is nonvisual sensory, and with an SC if it is self communication.

c. Rate each speed modifier in the C column following the speed modifier with a 1 if it indicates slow movement, with a 2 if it indicates the average normal speed for the action being observed, or with a 3 if it indicates fast movement.

d. Rate each strength modifier in the C column following the strength modifier with a 1 if it indicates a weak movement, with a 2 if it indicates average force for the action, and with a 3 if it indicates fast movement.

e. Rate each frequency modifier in the C column following the frequency modifier with a 1 if it indicates an action occuring once or twice, with a 2 if the action occurred several times, and with a 3 if the action is occurring continuously.

f. Rate each amount of time modifier in the C column following the amount of time modifier with a 1 if a short period of time is indicated, with a 2 if an average period of time is indicated, and with a 3 if a long period of time is indicated.

Appendix E, continued

Definitions Sheet for Nonverbal Involvement Behaviors (3/72)

ACTION

An ACTION is defined as observable nonverbal behavior of a person as he relates to his environment. The ACTION as here defined is generally signalled by a verb phrase (but may be signalled by a noun phrase) without its speed, strength, frequency, or amount of time modifiers. Examples: shuffles over to original table, smiles broadly.

MOTION

MOTION is defined as a movement of the body as a whole and/or parts of the body not included in the categories of Stance, Nonvisual Facial, Visual, Nonvisual Sensory, or Self Sounds. This movement implies movement of the body and/or bodily parts from one place to another. Examples: go, crawl, grab, throw, lift and arm, raise a leg.

STANCE

STANCE is defined as body position or assuming a body position without actually moving from one place to another. Stance does not overtly involve the movement of an object. Examples: sit, kneel, pause, hold an object.

VISUAL

VISUAL is defined as attention of the eyes as demonstrated by eye movement or eye stance. Examples: stare, look up, look around, watch, scan, eyes wide open.

NONVISUAL FACIAL

NONVISUAL FACIAL is defined as actions involving the total face or parts thereof, not defined as Visual or Sensory. Examples: squints, smiles, blank look, frown.

NONVISUAL SENSORY

NONVISUAL SENSORY is defined as actions involving the senses of taste, smell, touch, and hearing. Examples: eat, taste, touch, listen.

SELF-SOUNDS

SELF-SOUNDS consists of sound made in conjunction with object movement (sound effects) or made as a vocalized emotional expression. Examples: hums, makes a siren noise, laughs, cries.

PHYSIOLOGICAL SELF-SOUNDS

Sounds resulting from biological processes. Examples: sneezing, coughing, burping, and panting.

SPEED MODIFIER

A Speed Modifier is an indication of the velocity of an action. The Speed Modifier is usually signalled by an adverb or an adverbial phrase. Speed Modifiers are placed along a slow, moderate, or fast continuum. Examples: slowly, rapidly.

APPENDIX E, continued

TENSION MODIFIER

A Tension Modifier is an indication of the power or physical display of emphasis exerted in producing the action. Words that describe observable relaxation or tension apply. A Tension Modifier is usually signalled by an adverb or an adverbial phrase. Tension Modifiers are placed along a weak, average, or strong continuum. Examples: loosely, tightly.

FREQUENCY MODIFIER

A Frequency Modifier is an indication of the amount of repetition or the number of times an action occurs. A Frequency Modifier is usually signalled by an adverb or adverbial phrase. Frequency Modifiers are placed along a "two times," "several times," "continuously" continuum. Examples: again, repeatedly.

DURATION MODIFIER

A Duration Modifier indicates the length of time an action occurs. Duration Modifiers are signalled by words or phrases (not necessarily clocked times). Duration Modifiers are placed along a short, average, and long continuum. Examples: one or two seconds, several seconds, minutes; or, briefly, continues to.

Appendix E, continued

University of Maryland--Nursery-Kindergarten
Tally Sheet for Nonverbal Involvement Behaviors

Action M-motion NVF-Nonvisual Facial S-stance NVS-Nonvisual Sensory V-visual SC-Self Communication		Speed Modifier 1-slow 2-moderate 3-fast		Strength Modifier 1-weak 2-average 3-strong		Frequency Modifier 1-once or twice 2-several times 3-continuously		Amount of Time Modifier 1-short 2-average 3-long	
Word or Phrase	C	Word or Phrase	C	Word or Phrase	C	Word or Phrase	C	Word or Phrase	C

ANNOTATED BIBLIOGRAPHY

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Berelson, Bernard. Content Analysis in Communication Research. New York: Stratford Press, 1952.

The first treatment of content analysis as a research tool including techniques and a rationale for its use.

Birdwhistell, Ray L. Kinesics and Context. Philadelphia: University of Pennsylvania Press, 1970.

A series of essays on body motion communication are presented. Some specific findings on the American Movement system are included.

Budd, Richard W., Robert K. Thorp, and Lewis Donohew. Content Analysis of Communications. New York: Macmillan Company, 1967.

Six steps in the content analysis procedure are described. Alternative procedures are also presented.

Holsti, Zaninovich. Content Analysis: A Handbook with Application for the Study of International Crisis. Northwestern University Press, 1963.

Examples of how content analysis has been applied are presented.

Kerlinger, Fred N. Foundations of Behavioral Research. New York: Holt, Rinehart and Winston, 1964.

Devotes a chapter to discussing content analysis as a means for observing behavior.

Roderick, Jessie A., Principal Investigator. Nonverbal Behavior of Young Children As It Relates to Decision Making: A Report of Research Findings, Monograph 5, College Park: University of Maryland Nursery-Kindergarten, 1971.

The development of the Pupil Nonverbal Behavior Category System is presented with some of its findings.

Sellitz, Clarie, and Others. Research Methods in Social Relations. New York: Henry Holt and Company, 1959.

An introduction to methods of social research including research design, data collection, and analysis and interpretation of results.